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Worldwide Report

ENVIRONMENTAL QUALITY

No. 300

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BANGLADESH MINISTER SPEAKS AT ENVIRONMENTAL PARLEY

Dacca THE BANGLADESH OBSERVER in English 28 Feb 81 p 1

[Text] The Ministerial conference on environmental co-operation of 10 South Asian countries including Bangladesh which concluded in Colombo on Wednesday adopted a declaration on the establishment of the South Asia Co-operative Environment Programme (SACEP).

Termed as Colombo declaration it also decided that the Secretariat of SACEP will be located in Colombo.

Dr R. A. Ghani State Minister for Science and Technology who headed the four member Bangladesh delegation told BSS on Friday that in the three-day conference, Bangladesh expressed grave concern at the reduction in the flow of Ganges waters which resulted in desertification, water intrusion and salinity encroachment, alarmingly threatening agriculture and human habitat.

Dr Ghani said that Bangladesh strongly proposed for working out a suitable environment security plan for the South Asian region to adequately preserve the environment from the assault brought about by the development process now being carried out in the countries of the region.

Bangladesh also called for an improved and just environmental order so that resources could be optimally utilised without disturbing the ecosystem and this needed extended co-operation and friendship, goodwill and understanding among the Member countries of SACEP Dr Ghani said.

According to the declaration the principal organs of SACEP shall consist of a governing council a consultative committee and a secretariat. The governing council shall consist of all member countries of SACEP represented by Ministers and the consultative committee by heads of diplomatic missions of member countries in Colombo.

The member countries are: Afghanistan, Bangladesh, Bhutan, Burma, Indian, Iran, the Maldives, Nepal, Pakistan and Sri Lanka.

Dr Ghani said that Bangladesh was elected Vice President of the conference while Sri Lanka was the President. He however said that all the working sessions of the conference were presided over by Bangladesh.

He said that the conference was inaugurated by the Prime Minister of Sri Lanka Mr R. Premadasa.

The presidency of the general council will be for one year. The post of director of SACEP will be for three years. The meeting also decided to offer Sri Lanka the presidency of the general council and the directorship of the secretariat for the first term, Dr Ghani said.

During his stay in Sri Lanka Dr Ghani called on the President of Sri Lanka Mr J. R. Jayawardene and Prime Minister Mr R. Premadasa.

Other members of Bangladesh delegation were Mr M. A. Karim, Director Environment Pollution Control, Mrs Tahmina Khan, Dolly Bangladesh High Commissioner in Colombo and Dr Mahfuzul Huq a non-governmental representative.

CSO: 5000

NATION'S ENVIRONMENT SAID TO SUFFER FROM NEIGHBOR'S ACTIONS

Dacca THE BANGLADESH OBSERVER in English 1 Mar 81 p 5

[Text]

Environment is important to everyone irrespective of his status in society. Any measure that distorts it or brings about change in the ecological balance is therefore not welcome to any conscious citizen of a country. For that matter, any distortion initiated by any quarter needs to be resisted. At least that is the core of deliberation in various forums including the Law of the Sea conference or the ministerial level conference of countries in a given region. Those who know will point out that even governments of Japan and France have taken steps against environmental pollution rather rigorously. Bangladesh has, of late, instituted a bureau for conducting environmental analysis and for building up a network of programmes that will prevent, among others, environmental pollution.

This country being a lower riparian one often bears the burden of measures taken by upper riparian countries. Projects that ensure the irrigation facilities or the flushing of the port area, for example, often distort not only the flow of the river but also the

ecological balance of the lower riparian country. That is what happened to Bangladesh, due to the construction of Farakka barrage and the diversion of the Ganges waters to its tributaries in India. A vast tract of land down the Farakka barrage has apparently become arid with consequences on the farms as well as the foliage nearby. People in every walk of life has expressed concern about the baneful effects of environmental changes in this country. The official agencies have done their bit to measure the impacts and to tell their counterparts about them.

The Bangladeshi delegation to the meeting of South Asia Co-operative Environment Programme in Colombo, highlighted the need for environmental security in general and that for Bangladesh in particular. Such a security plan would naturally depend on the collaboration and support of neighbouring countries. It would mean, among others, prevention of water intrusion, salinity, and above all, the decay in the fertility of land that supports people and their habitat. This is a gigantic task and developing

countries should join hands in initiating such projects. As reported, in the Colombo meeting Bangladesh delegates called for an improved and just environment subsuming therein all projects for building barrages, reservoirs, canals, as well as, for taking programmes for afforestation and contour planning in addition to what is called pollution control.

It may be worthwhile to note that the countries in South Asia have not yet been able to resolve their differences on such vital environmental factors as the allocation of water of international rivers to countries concerned. Ad-hoc decisions have all the chances of being flouted by one or the other and, for that matter, by the upper riparian countries unless clearly spelt out treaties could be worked out. The Colombo meeting offered them an additional opportunity to exchange views and data for working out an honourable solution to the problems. It is hoped that every one concerned will do his bit to bring home to policy makers that environmental security is a sine-qua-non for all. The institution of a General Council and the Secretariat for the South-Asian Cooperative Environment Programme may at a long way in espousing the cause of environmental security for all.

AIR POLLUTION REDUCES AGRICULTURAL YIELD

Madras THE HINDU in English 13 Mar 81 p 16

[Text]

CALCUTTA, March 12.

Aerial pollution is causing a financial loss of Rs. 38 crores to West Bengal annually, according to a survey conducted by Dr. S. C. Banerjee, Chief Inspector, Smoke Nuisance Department of the State Government. The survey was made in Greater Calcutta and the districts for over five years.

A major part of the damage is accounted for by agriculture in terms of reduced yield per acre. According to the study, the loss to agriculture is Rs. 11 crores annually. Corrosion of metals costs Rs. 5 crores, medical expenses for the affected people account for Rs. 6.75 crores, damage to and repair of buildings, Rs. 2 crores, damage to textiles Rs. 5 crores, and laundry charges, Rs. 3 crores.

The study explains how the increased laundry charges, because of pollution, were worked out. Accounts of sales of detergents and soaps were taken from shops spread all over the State. The population increase was taken into account.

If the increase in sales was far more than that warranted by the population rise, then clearly other reasons like pollution were at work, it was pointed out.

Similarly, it was found that in hospitals, pollution victims accounted for 10 per cent of the total number of those admitted for treatment. Mostly the diseases were, cardiovascular problems, asthma, corrosion of eyes and reduced vision,

lung afflictions, headache and respiratory problems.

The existing laws, according to the Department spokesman, were quite adequate to control pollution, but manpower was not. The Smoke Nuisance Department had an annual budget of Rs. 2.5 lakhs only.

Agriculture was affected because rain water in many districts turned acidic following the high concentration of sulphur and other compounds. According to Dr. Banerjee, who claimed that the survey was the first of its kind in the country, steel tramway tracks lasted only three years in the city before they got corroded, because of the acidity in the soil after the rain. The level of pollution was reduced after the monsoon with the flushing of impurities. But in summer and winter, the problem became acute again.

In Hooghly district, the Department conducted a survey on a complaint made by the Agriculturists' Association. It found that atmospheric pollution had not only reduced the agricultural yield per acre, but also caused poisoning of the sub-soil ground water sources. The productivity of livestock and cattle also suffered. There were special diseases, from which the people of the district seemed to suffer, more than others.

The Department has suggested to the State Government that much of the pollution could be checked at source at little cost by using specific devices. But, in general, industries did not cooperate. The record of the public sector in this respect was no better than others, it said.

CSO: 5000

ENVIRONMENT MINISTER PROPOSES INDUSTRIAL DEVELOPMENTS LEVY

Money for Wildlife Fund

Wellington THE EVENING POST in English 4 Mar 81 p 4

[Excerpt] A television "bombshell" announcement last night from the new Environment Minister, Dr Ian Shearer, that he intended slapping a two percent levy on all major projects to establish a wildlife fund was described today as a "delayed action bomb" by the Minister himself.

In an interview Dr Shearer explained that the proposed two percent levy, which TV news had announced to the nation as an imminent fact, had been one of three suggestions he had first floated in a speech at Haast to the National Forest Action Council in April last year.

His principal proposal, aimed at preserving endangered native birds, was to place a conservation levy of two percent on the estimated cost of all major new industrial developments in New Zealand, which would be held in a wildlife fund and gather interest.

The other two proposals dealt with a rationalisation of environmentally related portfolios, and the possibility of legislation to protect endangered species.

The three suggestions had been taken up by the National Council of Women's physical environment standing committee, which had polled its 300,000 members for their opinions of them, Dr Shearer said today.

In last night's speech to the Waikato division of the NCW, Dr Shearer said he had thanked the council for its

interest and drawn attention to the results of the survey.

"Almost two thirds of respondent groups — 64.4 percent — supported the idea of a conservation levy which could, if applied at two percent, yield a fund of more than \$70,000,000," the Minister told the Waikato women.

"This could be used solely for the preservation of our endangered species."

Massive

While not so many of those polled had understood fully the second suggestion he had made on portfolios, Dr Shearer said, a massive 77.4 percent had given their approval to protective law being enacted.

Dr Shearer said today that at this stage he was still floating the ideas, particularly the conservation levy proposal. He saw it as a positive way of achieving finances to assist New Zealand's endangered wildlife.

However, while there was no firm intention at this stage of taking definite proposals for legislative action to the Cabinet, he would certainly be discussing the idea further with his cabinet colleagues.

"I have no doubt that, as a result of last night's 'bombshell' announcement from me, which was really more a delayed action bomb, the public will write to me with their reaction."

Large industrial and commercial companies which would be affected if such a tax were introduced would also no doubt be in touch.

He was sceptical of reported comments by some of those major firms that such a levy could make their particular project uneconomic.

Unionists

He said the major increased costs faced by large companies came from the activities of trade unionists, not environmentalists.

Huntly was a prime example. It was three years behind schedule but the environmentalists' only input — and they had been involved since the beginning — had been to ensure the temperature of the Waikato River was not raised to an adverse level.

"I'm delighted that the manufacturing and other organisations have picked it (the levy idea) up and are prepared to talk about it. That's part of my job — to assess reaction from both sides," he said.

Cool Reaction to Idea

Auckland THE NEW ZEALAND HERALD in English 4 Mar 81 p 1

[Excerpts]

Planners of major industrial developments yesterday recoiled in shock from a suggestion by the Minister for the Environment, Dr Shearer, which would increase their costs by millions of dollars.

The Minister of Energy and National and Regional Development, Mr Birch, said last night he believed Dr Shearer was "still tossing an idea around at this stage" and he expected they would discuss the matter.

Mr Birch said there was already a 0.5 per cent levy under the Local Government Act to reduce the impact of industrial projects and Dr

Shearer's suggestion would have to be supported by the Government caucus before it could be implemented.

The levy suggestion drew a distinctly cool reaction from the organisations planning major industrial schemes.

The chairman of the Synthetic Fuels Corporation, Dr C. J. Maiden, said it was already costing an "awful lot" of money to ensure projects met high environmental standards in their locality.

In the case of the synthetic gasoline plant, the levy could be \$15 million and the Government, because of its stake in the project, might have to foot much of the bill itself.

The general manager of South Pacific Aluminium Ltd, Mr J. G. Smith, said the 2 per cent levy was "very big money"—perhaps \$20 million for the second aluminium smelter.

"My early reaction was that the country is desperate to get new industrial projects off the ground and get the economy up and running again," said Mr Smith.

"Anything of this nature which adds to the cost seems to me to be a distraction from that initial need."

He said that for some projects, a 2 per cent additional cost could make the difference whether they went ahead or not.

Chamber of Commerce Head

Auckland THE NEW ZEALAND HERALD in English 6 Mar 81 p 5

[Excerpt]

The president of the New Zealand Chamber of Commerce has criticised plans announced this week to set up a wildlife fund financed by levies on major industrial developments.

Mr S. R. Hull, in Auckland yesterday for a meeting of the city's chamber of commerce, said he thought the revenue the fund would take could threaten the creation of more employment by big new industrial operations.

"In the chamber of commerce movement we are keen to see jobs created," he said. "But as soon as we impose a levy on a new business we reduce the chances of that business being able to help unemployment."

"I don't think it is incorrect to protect the environment. However, I hope members of chambers of commerce will question this levy and decide if it is proper."

Paper Lauds Proposal

Auckland THE NEW ZEALAND HERALD in English 5 Mar 81 p 6

[Editorial: "Cost of Conservation"]

[Text]

Conservationists will be delighted at the proposal of the new Minister for the Environment, Dr Shearer, for a levy on the capital cost of major new industrial developments to support the preservation of endangered species. Industrialists already faced with big bills to meet environmental standards are, hardly surprisingly, not quite so delighted; and the public which, in the long run, generally ends up paying industry's bills, will want to know more about the details of the suggestion.

Yet Dr Shearer's proposal has merit, even though his dedication to the cause of conservation may not be shared by all his Government colleagues, nor indeed by all of the public. Until recent years, New Zealand had one of the sorriest records in the world for the extinction of rare species; the destruction of the moa was just the first step in a process that has decimated the living products of a unique environment.

The mistakes of the past — and some, looking at the basis of New Zealand's prosperity, would argue that they were not all mistakes but necessary for development — need not be repeated today. But how high a priority should the preservation of rare species have? Should it, as Dr Shearer says, require a trust fund of nearly \$80 million, contributed

by industry? Or is the responsibility directly that of the Government?

In proposing a 2 per cent levy, Dr Shearer may well be flouting a figure for discussion. Some industries suggest that such an impost might be the difference between make or break; and where would the minister propose to draw the line, between "major" and "minor" industries? Where would the trust he envisages invest its very considerable funds?

Dr Shearer's proposal is not without precedent. As the Minister of National and Regional Development indicates, there is already a levy of 0.5 per cent under the Local Government Act to reduce the impact of industrial projects.

Local bodies, too, can require subdividers to set aside land or money for reserves, and the Government has long had the power, under the Electricity Act, to devote up to 1 per cent of the estimated capital cost of power projects to provide "public amenities."

The fact that the 1 per cent has seldom been put to use suggests that governments are reluctant to add such an impost to the cost of their own projects. Can the state expect industry to do more than it is prepared to do itself? Dr Shearer has no easy task in selling his scheme where it matters, inside his own caucus.

LAWS PROTECTING COASTLINE FROM POLLUTION EXPLAINED

Auckland THE NEW ZEALAND HERALD in English 9 Mar 81 p 6

[Article by marine reporter Roy Vaughan]

[Text] Who cares for the coast? The Ministry of Transport does and it has launched a publicity campaign to show how it manages beaches and harbours.

The principal line of defence against pollution and unwanted developments is through act of Parliament.

In fact, there are 18 acts which regulate harbour development, legislate against pollution, conserve soil and rivers and try to prevent depletion of fish stocks.

In addition to administering the Harbours Act, which regulates the major part of coastal activities, the ministry has to give its consent for just about every other kind of activity covered by other legislation which occurs seaward of the high water mark.

All physical works in tidal or navigable water must be approved under the Harbours Act. Before any structure can be built, it is necessary to obtain a licence to occupy the area of foreshore or seabed.

Fines of up to \$20,000 can be imposed on persons carrying out unauthorised reclamations. Any reclamation must be authorised by order-in-council if less than four hectares in area or else by a special act of Parliament.

Consent From Ministry

While harbour boards are responsible for planning new facilities within

their ports, they have to obtain consent from the ministry for all work in tidal areas. Major port development has also to be approved by the Ports Authority.

Sand and shingle can be removed and seabed mining carried out only with the approval of harbour boards — where the seabed or foreshore is vested in such an authority — or from the ministry.

Coastal erosion is largely prevented by making it necessary for all coastal development schemes to be prepared according to the Town and Country Planning Act.

If erosion protection work is proposed below high water level it has to be approved by the ministry.

The Water and Soil Conservation Act has been formed to protect water quality and its watchdogs are the various regional water boards which establish what quality of water should be maintained.

For example, water fit for fish farming and swimming gets one of the highest ratings but there are other areas where water is deemed to be too polluted for fish farming.

The Marine Pollution Act stipulates who is re-

sponsible for fighting oil pollution and also lays down the fines.

The Ministry of Transport has developed a national plan for dealing with any large spills and sightings of oil spills should be reported to harbour boards in port areas or to ministry office.

The Marine Pollution Act also controls the dumping of waste at sea, according to international conventions, and it is necessary to get a permit from the ministry if any dumping is contemplated.

Litter comes under three acts — the Litter Act, the Water and Soil Conservation Act and the Harbours Act — to give legal protection for beaches, foreshores and coastal waters.

Esplanade Reserve

Coastal land use, right down to the mean high-water mark, is controlled by district planning schemes which are prepared and administered by territorial local authorities under the Town and Country Planning Act.

All subdivisions now have to have a 20-metre es-

planade reserve above the mean high-water mark.

The management, conservation and protection of fish are covered by the Fisheries Act, which is administered by the Ministry of Agriculture and Fisheries.

This also includes New Zealand's exclusive economic zone. The public has an unrestricted right to take fish, except in marine reserves, provided legal catch and size limits are complied with.

No one can establish a fish farm without the approval of the Ministry of Agriculture and Fisheries, while the Ministry of Transport oversees the allocation of water and foreshore area.

The Wildlife Act protects coastal birds and makes shooting or injuring them illegal and the Marine Mammals Protection Act protects marine mammals.

Underwater Parks

The Department of Internal Affairs administers the Wildlife Act and the Ministry of Agriculture and Fisheries oversees the Marine Mammals Act.

One of the latest pieces of legislation to protect the environment is the Marine Reserves Act, which was recently amended to allow the preservation of unique marine areas for both scientific and scenic reasons.

It is also administered by the ministry, but harbour boards and other local authorities have been delegated powers to control foreshore, seabed and water, which can be set aside as parks by them.

Two separate sets of regulations lay down the "highway code" for all water users.

The rules are contained in the Water Recreation Regulations and Collision Regulations.

The commercial use of boats is governed by the Shipping and Seamen Act and this is administered by the Ministry of Transport.

The provision of light-houses and navigational aids is a joint responsibility of the ministry and local harbour boards, who are required to install and maintain the appropriate facilities in port areas.

The Royal New Zealand Navy is responsible for charting the coastline although some harbour boards have their own hydrographers to survey ports.

Where maritime planning is concerned, local harbour boards are delegated to carry out this responsibility in their areas. If there is no harbour board another local authority takes the role.

Some of the greatest environmental conflicts in recent years have involved activities on the coast, so the Ministry of Transport hopes its publicity campaign will make people more aware of the safeguards which already exist and procedures to be followed.

RIVER PROTECTION LEGISLATION DELAYS HYDROELECTRIC SCHEMES

Auckland THE NEW ZEALAND HERALD in English 5 Mar 81 p 1

[Text] Acclimatisation societies seem to have won an early battle in their fight to protect rivers from local hydro schemes.

The Government is moving to strengthen legislation protecting rivers for specific uses such as fishing and other recreational pursuits, their scenic beauty or scientific uses.

The Minister of Energy, Mr Birch, said last night that no further local hydro schemes would be approved until the protective legislation was in place.

The Acclimatisation Societies prompted an angry reaction from Mr Birch last year when they began an unprecedented advertising campaign to make their point.

Annoyed

Mr Birch asked his officials to look into the amount of Government financial support being given to the societies.

It is obvious the minister is still annoyed with the way the societies went about making their point. He told them he recognised the merits of their argument, although he objected to its tone.

He said a review of the Water and Soil Conservation Act was planned by the water and soil division of the Ministry of Works and Development.

"This will incorporate an

amendment to enable a regional water board to designate a river or a stretch of river under its water allocation plan as protected for certain uses, whether fishing, recreational, scenic or scientific," said Mr Birch.

Binding

"This designation would then be binding on other intended users or developers."

Because of the importance attached to the subject, the Government was prepared not to authorise the construction of any further local hydro schemes until firm protective legislation was in place.

However, said Mr Birch

the Government had agreed that some investigative work approved in 1979 on local hydro resources would continue.

The director of the national executive of Acclimatisation Societies, Mr W. B. Johnson, said his organisation viewed the development "with cautious optimism."

The minister had recognised the merit of the organisation's arguments, but there was still a long way to go on the issues.

There would be a meeting with Mr Birch on March 18 when officials would be present to discuss the issue further.

RECREATIONAL GROUPS TO LAUNCH 'SAVE THE RIVERS' CAMPAIGN

Wellington THE EVENING POST in English 2 Mar 81 p 18

[Text] Auckland, March 1 (PA)--Fresh water recreational groups will launch a national Save the Rivers campaign in Wellington later this month.

The campaign was endorsed by the New Zealand Federation of Freshwater Anglers at its annual meeting in Tauranga on Saturday.

The campaign has the support of the New Zealand Canoeing Association and the New Zealand Federated Mountain Clubs, according to anglers' president, Mr John Giaccon.

On March 28 the groups will meet at Victoria University, Wellington, to decide on a course of action.

Mr Giaccon said the hydro-schemes associated with the Arameana aluminium smelter had given anglers the greatest cause for concern.

"We wish to see the re-establishment of the wild rivers scheme where certain rivers are declared wild and left untouched," he said.

Where power schemes were approved, the anglers would push for the establishment of fish ladders, lifts or bypasses to allow fish to move up and downstream past dams.

Hydro schemes had never made provision for this in New Zealand although it was common practice overseas, he said.

The anglers also want the fresh water fisheries research division of the Ministry of Agriculture and Fisheries combined with the wildlife division of the Department of Internal Affairs.

They will also launch a campaign against the spread of Chinese grass carp.

"We are very concerned at present about the publicity given to this fish regarding its uses for weed control. It is banned in 35 states in the United States as a noxious pest," he said.

He said salmon anglers in the South Island were also being threatened by legislation which allowed natural ova to be stripped from streams and used for ocean salmon ranching.

Under this practice the salmon is reared in cages at sea and never returns to the river, he said.

The anglers plan to join forces with the New Zealand Big Game Association, the Underwater Diving Association of New Zealand and New Zealand Anglers and Casting Association to form a common lobby of recreational water use.

COROMANDEL PENINSULA MINING REMAINS CONTENTIOUS ISSUE

'National Disaster' Charge

Wellington THE EVENING POST in English 9 Mar 81 p 26

[Text]

AUCKLAND, March 8 (PA). — The proposed goldmining ventures on the Coromandel Peninsula by the overseas owned multinational mining companies, which involve large-scale opencast mining, could be a national disaster and should be totally opposed, said Mr Eddie Isbey (Labour Papatoetoe), and Mr Mike Moore (Labour, Papanui).

The joint statement came after making a fact-finding tour of some of the affected areas, the result of an invitation by the Peninsula Watching Committee, the Forest and Bird Society, the Friends of the Earth and other environmentalists.

"It was alarming to look at thousands of acres of bush farmland and rolling bush-clad hills and to visualise that they would be utterly devastated by the tailings effect of the mining operations.

"These giant foreign goldmining companies, with the apparent subservience of the National Government, have set their hungry and covetous eye on the alleged "hidden wealth" beneath the hills and pastures", the MPs said.

The multinationals' activities in other parts of the world have demonstrated a ruthless drive to extract the wealth for foreign entrepreneurs regardless of

the enormous ecological damage they cause, they said.

"We call for the Minister of Mines, Mr Birch, to place a moratorium on all of this type of mining until the Mining Act is reviewed, as promised, and full investigations are made into the highly dubious claims of economic advantage to New Zealand."

The MPs challenged the minister of mines, the new Minister for the Environment, Dr Shearer, and the Government to prepare an economic and social audit of the mining ventures and what the economic benefits were for New Zealand. They also asked for an independent environmental impact report.

Environmental Damage Bond

Wellington THE EVENING POST in English 2 Mar 81 p 18

[Text 7]

AUCKLAND, March 1 (PA).—Legislation proposed by the Labour Party's energy spokesman, Mr R J Tizard, would force multinational mining companies to put up a substantial bond as insurance against environmental damage.

Provision for the bond is included in a private member's bill which Mr Tizard intends to introduce early in the parliamentary session.

Mr Tizard said that in view of the Government's intention to review the Mining Act, there should be a moratorium on the issue of mining licences until Parliament had had a chance to change the law.

Of Labour's proposals, he said a workable system would need to include all types of mining throughout the country, with appeal procedures which gave due regard to both national and local interests.

Mr Tizard said his bill included provision for a full hearing to be held between

the granting of prospecting and mining licences, to ensure all interest groups were given ample opportunity to air their views.

Some ministerial decisions would also have to be argued in a court of law which had heard all aspects of a case for a change of land use before any licence was issued.

A substantial deposit would be required from multinational mining companies to ensure reinstatement of land once mining had ceased.

Mr Tizard said that only Labour was offering the adequate safeguards and effective appeal procedures which could resolve the mining issue.

CS01 5000

SPEAKERS STRESS PROTECTION OF LUMBER INDUSTRY INTERESTS

Christchurch THE PRESS in English 9 Mar 81 p 2

[Text]

Greymouth reporter

To destroy the basis of the West Coast native forest milling industry is not in the best interests of either the West Coast or New Zealand, the Minister of Trade and Industry (Mr Adams-Schneider) told a Saturday seminar on the future of West Coast native forests.

He was concerned, he said, about assertions that if the present rate of milling native forests in South Westland was maintained, there would not be enough timber left by the 1990s to support a viable, small-scale, native timber industry.

The answer to the problem could lie in the South Westland mills' voluntarily lowering their cut over the next 10 years or so to ensure that the option was there.

One positive development had been that the removal of price control on native timbers was beginning to encourage these woods to be used more rationally for furniture and home decoration rather than for house-building, Mr Adams-Schneider said.

Millers should seize the chance that higher prices had offered them to process native woods more exten-

sively, to increase both profits and job opportunities.

Moves in this direction offered a better chance for the survival of a forest-based industry, and at a level that did not exceed the capacity of the forests to supply, he said.

The seminar was run by the Royal Forest and Bird Protection Society and the Native Forests Action Council to consider management plans published by the Forest Service for both North and South Westland State Forests.

The Forest Service had had a real conundrum to steer a course between the requirement of economics, social considerations, and conservation in the plans, while satisfying the realities and technicalities of forest management, said the Deputy Director-General of Forests (Mr A. Kirkland).

While environmental considerations were important, the interests of the mills, those who worked at them and the local societies they underpinned, should not be overlooked or undervalued.

The Forest Service had to consider the economic and social consequences of altering the terms of the seven contracts for timber held by the four South Westland mills, he said.

FINANCIAL GAINS IN FOREST PRESERVATION EMPHASIZED

Wellington THE EVENING POST in English 9 Mar 81 p 10

[Text] The financial spin-off to local communities from the educational and scientific use of forest reserves can be extremely lucrative, according to Mr Gerry McSweeney, a naturalist with the Westland National Park Board.

Mr McSweeney made the comment when he presented a paper at a seminar looking at the future of West Coast forests.

"Nature conservation is certainly a valid alternative land use. It does not foreclose on future options — quite the opposite," he said.

Interest in natural history is booming. Educational and scientific use of reserves should be encouraged, he said.

Over the summer, at the park, talks had been given almost every night to audiences totalling more than 12,000 people.

"One of the comments made most frequently was that whereas high-rise hotels, colour television, Coca-Cola and even mountain scenery can be seen the world over, it is New Zealand's distinctive natural history that sets us apart from other countries.

"Kiwi, weta, tree fern, rimu and rata are not just plants and animals. Together they represent some of our foremost tourist attractions," he said.

Over the next few months important decisions would be made on the future of the forests in the north and south of Westland, he said. Forest Service management plans clearly identified the forests as the best remaining examples of lowland native forest that once covered much of New Zealand.

They also recognised that indigenous saw-milling was an important primary industry in New Zealand.

He pointed out that the lush Westland foliage was the nutrient pool of the system. Excessive demands made on the system would deplete the pool. If it was lost, the whole system would be pushed further along the scale of soil deterioration.

If the management of native podocarp forests was ever to be successful, much more information about the ecology of natural rimu forests was needed, he said.

The educational value of the forests was considerable, he stressed.

If reserves were to be established they should represent the complete sequence of landforms, soils and for-

est types of the region. It was not good enough to set aside reserves excluding the youngest components of the sequence.

These areas included matai, totara, kahikatea and high volume red and silver beech, he said. They were the richest and most diverse plant life. They also appeared to contain the richest insect, fauna and birdlife.

The seminar was organised by the Native Forests Action Council and the Royal Forest and Bird Protection Society. It was aimed at bringing together a range of government departments, the West Coast United Council and the conservation movement for a series of discussions on the Forest Service has published fresh management proposals for the north and south Westland state forests.

BRIEFS

SPRAY DAMAGE DENIED--Rotorua--A claim yesterday that herbicide spraying had destroyed rare native ferns in the Waimangu Valley was described as "absolute nonsense" by Mr Colin Sewell, the man running the tourist business there. The claim came from the chairman of the Rotorua branch of the Royal Forest and Bird Protection Society, Mr C. Ecroyd. Mr Ecroyd said he had visited the valley recently to find that herbicide had been sprayed along track edges, causing considerable damage to rare plant life. Mr Ecroyd, a botanist, said that after a detailed analysis of threatened plants in New Zealand, he had found that Waimangu Valley had more rare and endangered plant species than any other scenic reserve in the country. But Mr Sewell flatly rejected the claims. Spraying had been with a non-hormone weed killer which left no residue in the soil, had been properly carried out and restricted to the paths themselves, said Mr Sewell. The senior reserves ranger for the Bay of Plenty, Mr R. E. Neale, visited Waimangu yesterday afternoon and said he could not see anything to cause concern. [Excerpts] [Auckland THE NEW ZEALAND HERALD in English 24 Feb 81 p 2]

RANGITAIKI RIVER POLLUTION--Tauranga--Pollution of the Rangitaiki River below the Rangitaiki Plains Dairy plant is being investigated by the Bay of Plenty Catchment Commission. Sewage fungus, a term used to describe large colonies of micro-organisms which form in organically polluted water, has been floating in the river in large quantities since before December. But in a report to the commission, the water resources engineer, Mr W. A. Taylor, said the dairy company was operating within the terms of its right to discharge effluent into the river--"with respect to most parameters." The company discharged about 87,000 cubic metres of whey into the river each season. An ultra-filtration plant removed most of the solids from the whey before discharge, according to evidence given to the commission by Dr M. Matthews, on behalf of the company. Dr Matthews told Mr Taylor that problems with sewage fungus in the river would be solved before next season. However, Mr Taylor had investigated means of reducing the problem in the short term, and he had come up with two possibilities. The dairy company was installing a flow meter and a proportional sampler to help inquiries, he said. It had also commissioned a research company to investigate the other proposal--intermittent discharge--which Mr Taylor believed might eliminate the fungus problem. [Excerpts] [Auckland THE NEW ZEALAND HERALD in English 24 Feb 81 p 2]

NEW PROTECTED FOREST--A new protected forest area has been set aside in the Coromandel State Forest Park. The 2200-hectare Motutapere ecological area lies to the north of the Kopu-Hikua road and contains examples of modified kauri-podocarp-hardwood forest. The establishment of Motutapere brings the number of ecological areas in the Coromandel to five. [Text] [Auckland THE NEW ZEALAND HERALD in English 3 Mar 81 p 6]

FORESTRY PORT SURVEY--Whangarei--The environmental impact report on the forestry port project at Marsden Pt has been completed and will be forwarded to the Commission for the Environment for a two-month audit. The still-confidential report on the effects of building the \$60 million forestry export port was presented to Northland Harbour Board members yesterday. The impact report covers biological impacts, the effects of traffic, noise and vibration, social and land use impacts, effects on sediment movement and harbour hydraulics as well as archaeological and wildlife impacts. [Excerpt] [Auckland THE NEW ZEALAND HERALD in English 6 Mar 81 p 2]

REGIONAL PLANNING THREAT--Regional planning could threaten the fishing industry, according to an economic research officer with the New Zealand Fishing Industry Board, Mr Alec Duncan. Writing in the board's magazine, Mr Duncan said damaging restrictions could be placed on the fishing industry by regional authorities preparing schemes and maritime plans for their areas. "Positive benefits could be conferred by protection of the marine environment if activities such as coastal and underwater mining and sewage outflow are curtailed. "The danger to the fishing industry is that with poor information, fishery management prerogatives of the Ministry of Agriculture and Fisheries could be taken over by regional plans. "For example, problems could arise if regional planners decided to prohibit commercial fishermen from using areas of coastal waters wither for aquaculture, rock lobster fishing or fin fishing," said Mr Duncan. [Text] [Wellington THE EVENING POST in English 4 Mar 81 p 20]

CSO: 5000

CHINA'S LARGEST WASTE-WATER TREATMENT PLANT

Rangoon THE WORKING PEOPLE'S DAILY in English 10 Mar 81 p 7

[Text] HONG KONG, 8 March—China's largest waste-water treatment plant with an ultimate capacity for treating 200,000 tons of waste water per day has swung in part into initial operation, the New China news agency (NCNA) reported today.

The plant has been built in the Jilin chemical industrial centre, northeast China, at a cost of nearly 40 million US dollars, NCNA said.

The initial function of the plant is to treat waste water discharged by chemical plants and residential districts.

The current treatment capacity at the plant is 100,000 tons a day but, when completed in total the plant will be able to handle double the amount, NCNA said.

The plant, under construction since March 1979, is equipped with wastewater monitoring stations, neutralizing

lagoons and a 65-kilometre-long pipeline which conveys water from chemical plants and residential districts to the plant and then into the Songhua and Nen rivers.

In the past few years, industrial waste containing 192 harmful chemicals have badly polluted the river water, soil, and crops, bringing protests from local people.

In compliance with a nationwide pollution control programme, chemical plants in the Jilin centre, one of China's leading chemical producers, have set up an environmental protection office staffed by 450 pollution-control specialists.

The central Government has allocated 60 million yuan (39.6 million US dollars) for building the Jilin treatment plant NCNA added.

NAB/AFP

FEDERAL GOVERNMENT URGED TO COMBAT EROSION IN RIVERS STATE

Lagos DAILY TIMES in English 20 Mar 81 p 7

[Article by Maurice Domboh]

[Text]

ONE of the greatest challenges facing the people of the Rivers State is how to contain the menace of erosion. The problem posed by erosion is further compounded by the perennial threat of floods which submerge a greater part of habitable land area of the state and destroy a number of villages yearly.

Consequently, crops, economic trees, farmlands and property, including houses, are destroyed by floods leaving the people in abject penury. Added to all these hazards is the much highlighted threat of oil spillages and pollution in the riverine areas.

Rivers state which occupies a total area of about 28,000 square kilometres (2.8 million hectares) has 75 per cent of this as water and therefore not habitable. Based on the 1963 census figures and guided by a yearly population growth of 2.5 per cent, experts assess the current population of the state at about four million. At present, about four million people are living in an area less than 17,000 square kilometres of land.

The present administration of Chief Melford Okilo does not see the problems posed by the menace of both erosion and flood as intractable.

The government's first action was the creation of a directorate of Flood and Erosion. And to give support to the future operations of the directorate in terms of research, an Institute of Flood, Erosion and Reclamation Studies is to start functioning at the new Rivers State University of Science and Technology next academic session.

A N14 million con-

tract for the reclamation of vast areas of land was awarded shortly after the Okilo administration took office. This project covered some ancient and historic towns, namely, Okrika, Buguma, Ogbia, Akassa and Ogu.

The latest of such projects is the N56 million contract awarded to foreign company to combat erosion and floods in sixteen towns

and villages including Odi, Sagbama, Opokuma, Kaiama, Odoni and Sabagreja.

When the Niger Delta Development Board was first set up, there were hopes that it would sooner or later find solution to the incursion of sea encroachment and the menace of flood in the Delta. Unfortunately, these hopes flickered out with the civil war. The birth of the Niger

Delta Basin Authority in 1989 by Decree 87 to cater mainly for the Rivers State has not made any impact, apparently due to lack of funds.

The Federal Government should assist Rivers state to combat the crippling effects of both erosion and flood on the economic growth of the people. A meaningful Federal Government involvement could be beneficial in two ways. While salvaging the people of the Rivers state from the strictures of these

hazards, the excess waters from the affected areas could serve a useful purpose in the

comparatively arid areas of the north or elsewhere to facilitate our green revolution.

STORM KILLS THREE, LEAVES 200 HOMELESS IN ENUGU

Enugu DAILY STAR in English 13 Mar 81 p 1

[Article by Dom Ekpunobi/Chris Ogbaekirigwe]

[Text]

THREE persons have been reported dead, and more than 200 rendered homeless following a fierce storm last Tuesday night in Enugu, the Anambra State capital.

The corpses so far discovered are those of two men and a woman.

As at the time of our report, only the woman victim had been identified. She was discovered at the same time with a male corpse at Nike Road Abakpa, while the third victim was discovered at a house in the hinter-land of Abakpa Nike.

The woman was identified as Mrs Agnes Onwe, a mother of three children and a native of Ntizi in Abakaliki, residing in Ugboche Nike.

She was reportedly returning from the local market when she met her death in the storm.

The male corpse, found also at Nike Road was said to be that of a man electrocuted after the storm had pulled down an electric pole.

The fierce wind carried both planks and zinc roofing off many houses along the streets.

The third victim was said to have died when a brick wall fell on him, smashing his body.

The areas seriously affected by the storm are Nike Road, Isike Street, Amesi Street and environs, and Ugboche, all in Abakpa Nike. Also affected are some places at New Haven, near Abakpa Nike.

At Isike Street, more than four buildings were completely unroofed and the debris were flung so many metres away.

Also at Amesi Street and Ugboche, the top of many buildings were blown away leaving occupants in the cold through the night.

A police deputy superintendent at Abakpa Nike Police Station, Mr G.E. Erhomonhose said the police received only one official report concerning the dead woman and that arrangements were underway to remove the corpse to the University of Nigeria Teaching Hospital mortuary.

RATIONAL USE, PROTECTION OF WATER RESOURCES

Moscow RATSIONAL'NOYE ISPOL'ZOVANIYE I OKHRANA VODNYKH RESURSOV in Russian 1980 (signed to press 11 Aug 80) pp 1-5, 223-224

[Introduction and table of contents from book "The Rational Use and Protection of Water Resources", by Yuriy Petrovich Belichenko, candidate of technical sciences, and Mikhail Mikhaylovich Shvetsov, candidate of economic sciences, Rossel'khozizdat, 11,000 copies, 224 pages, illustrated]

[Excerpts] Water resources play an important role in the reinforcement of our nation's material and technical base.

The consumption of water in the national economy far surpasses the consumption of all other products combined: coal, oil, gas, ore, cast iron, steel, cement, fabric, foodstuffs and others. The figure now exceeds 300 billion cubic meters of water a year. What is more, the annual increase in water consumption reaches as high as 10 billion cubic meters. The operation of hydroelectric power stations and the maintenance of the necessary conditions in river systems for the fishing trade and water transport require more than 1,500 billion cubic meters of running water a year.

Agriculture is the main consumer of water. During the 1976-1980 period the water requirements of agriculture rose even higher in connection with the planned increase in areas irrigated by means of flooding (an increase of 4 million hectares) and by means of sprinkler systems (37.6 million hectares) and drained land (4.7 million hectares).

The provision of the national economy with this quantity of water necessitates large-scale water management construction--the construction of water intake and distribution systems to convey water from the source to the consumer, the creation of reservoirs to regulate river run-off for the benefit of the consumers and users of water, and the construction of systems to transfer river run-off from large reservoirs to smaller ones and numerous other facilities. Measures to prevent the pollution of water with agricultural and household waste are of the utmost importance in this work.

Water resources represent the national wealth of our country, requiring strict accounting, protection from pollution, and economical and well-planned utilization in the national economy. This is why much is now being done to estimate the total

quantity of surface and underground water resources on the regional and national levels.

Considerable progress has been made in the study of the properties of river run-off and in the calculation of ground reserves of fresh and salt water. Extensive studies are being conducted to analyze the quality of natural springs and the changes this quality undergoes as a result of the intensive development of water consumption and redistribution and to plan and implement measures to prevent the pollution of surface and ground water. Water resources are being used according to plan, under the supervision of central and local state water inspection agencies. The complex system for the protection and conservation of water resources requires the further improvement of all its elements.

The rapidly changing economic structure of some regions and changing population figures call for a differentiated approach to technical policymaking in the area of water conservation. The extensive work now being conducted everywhere to conserve water resources, intended to guarantee the water supply of individual cities and industrial and agricultural regions, can result in the total attainment of current objectives if this work is performed with a view to the latest scientific and technical discoveries. This is why each specialist in agriculture and water management must increase his knowledge of methods of organizing the efficient use and protection of water resources and put this knowledge to practical use.

At present, the fundamental documents on water resource protection are the following: "The Fundamentals of Water Legislation of the USSR and the Union Republics," the "water codes" of the union republics, the decrees of the USSR Council of Ministers of 22 April 1960 "On Measures To Regularize the Use and Reinforce the Protection of the Water Resources of the USSR" and of 2 June 1976 "On the Procedure for the Compilation and Approval of Plans for the Comprehensive Use and Protection of Water Resources," the decree of the CPSU Central Committee and USSR Council of Ministers of 29 December 1972 "On the Reinforcement of Nature Conservation and the Better Use of Natural Resources," the "Rules Governing the Protection of Surface Water from Pollution by Sewage" and others.

Considerable importance is being attached to the role and significance of scientific research in the area of comprehensive planning for the protection of natural water resources, and more extensive scientific research is envisaged. Plans have also been made to accelerate scientific and technical progress through the extensive development of scientific research and the rapid use of research findings in the production sphere.

The need to protect the purity of water and the impending threat of a water shortage call for a comprehensive and intelligent approach to the use of water resources, including all water conservation measures.

The CPSU Central Committee and USSR Council of Ministers are paying close attention to matters connected with the efficient use and protection of our country's natural resources. In his report at the 25th CPSU Congress, Comrade L. I. Brezhnev said: "The development of our national economy and the growth of our cities and industrial centers will necessitate increasingly large expenditures on environmental protection--a total of 11 billion rubles was allocated for this purpose in just the current five-year plan. This figure will rise. Given the rapid growth

of our economic potential and enhancement of the well-being of the working public, funds for environmental protection can only be derived through heightened production efficiency."

The principal aim of the protection and improvement of water resources and the efficient use of water in agricultural regions should be the establishment of the necessary conditions for economic growth and the heightened effectiveness of national production, as well as a better life for the working public and the preservation and improvement of natural potential.

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MORE HEAVY METALS, RADIOACTIVITY IN BALTIC SEA

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 4 Mar 81 p 31

[Article by Harald Steinert: "More and More Heavy Metals in the Baltic Sea"]

[Text] Pollution of the Baltic Sea, which is one of the most environmentally tainted seas in the world, has in most recent times developed very unevenly. While many chemicals in the western area of this sea are increasing to a threatening extent, a decline can be observed for others. Radioactivity has been going up recently, even though nuclear weapons tests in the atmosphere have largely been discontinued. This was recently found by German scientists.

The investigations of the western Baltic Sea area supported by the German Research Association and now published in the journal NATURWISSENSCHAFTEN (Physical Sciences) were conducted by a group of sedimentologists from Heidelberg under the leadership of Prof G. Mueller, a group of food chemists from Muenster, and a Senckenberg researcher from Wilhelmshaven. The scientists analyzed materials and environmental poisons absorbed in the clay slip deposits of the sea bed. Because the age of individual layers of the sediment can be determined exactly by radiological methods, it is possible to show how pollution of the sea developed over a period of time.

Until now, a broader assessment of the analytical results was difficult because it was mainly the foreign substances floating in the water which were examined, and this did not give a reliable picture of the pollution. The difficulties can be circumvented by analyzing the sediments, which have collected foreign bodies from the water moving above them.

The group of German researchers analyzed three soil samples which were obtained from Kiel Bay, Luebeck Bay and Eckernfoerde Bay by the research ship "Senckenberg." The samples came from water depths of 15 to 21 meters. The soil samples, cut into centimeter-thick disks, were transported to the institute deep frozen, and there each disk was analyzed individually.

The cores show that pollution of the western Baltic Sea began around 1880. Industrialization started at that time, as can be observed from the increase in concentrations of heavy metals--mainly zinc and lead--in the sediments. At about the same time, the traces of a new industrial age were also left in the eastern Baltic Sea and in the Gulf of Bothnia. Since that time, the concentration of these

metals in the sediment has risen steadily. Additions from sewers (with the phosphorus and nitrogen from households), on the contrary, have clearly increased only since 1965.

The concentration of highly poisonous insecticides in the western Baltic Sea has even decreased. The concentration of DDT--which was used starting in 1945, as can be observed from the sediments--rose continuously up into the 1970's. Since then DDT, which was banned in the FRG in 1973, can no longer be used in many European countries. On the other hand, another less poisonous chlorinated hydrocarbon increasingly used as a replacement for DDT, lindane, is entering the Baltic Sea in ever-increasing quantities.

Analyses measured according to Cesium 137 content yielded peculiar results, however, with regard to artificial radioisotopes, which come primarily from nuclear weapons tests. Cesium 137 gets into the atmosphere and rains down on the whole earth as radioactive "fallout." The nuclear weapons tests in the atmosphere reached their high point in 1962; in the sediments, radioactivity reaches its maximum a few years later. Since the beginning of the 1970's the Cesium 137 content has been slowly going down again--with one exception.

It is not yet clear why, for about the past 5 years, cesium content has again been increasing in the Luebeck Bay area, although the atmosphere contains fewer fission products than in the past two decades. Researchers observed a similar increase in plutonium in the eastern Baltic Sea and in the Gulf of Finland which occurred a little sooner than the cesium rise in Luebeck Bay. The cause of this new wave of radioactive pollution may be the wastewater from nuclear reactors in the Baltic Sea. Because water from the great rivers in the east goes into the Baltic to the west, it may be surmised that it is reactors in this eastern part of the sea which give off radioactively polluted wastewater into the sea or into rivers flowing into the Baltic Sea.

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SIXTEEN-COUNTRY POLLUTION CONTROL HEADQUARTERS MOVES TO ATHENS

Athens ATHENS NEWS in English 11 Mar 81 p 4

[Text] THE MINISTRY of Foreign Affairs announced yesterday that during a meeting of countries that signed the Treaty of Barcelona to Protect the Mediterranean from pollution, which took place in Cannes March 2-7 1981, Athens was unanimously chosen as the seat for the Coordinating Unit-Secretariat for the Mediterranean Action Program.

The Mediterranean Action Program in which 16 countries, including the EEC, are participating, takes place within the framework of a more general United Nations program for the protection of the environment.

The choice of Athens as the seat for the secretariat means that a large number of international employees will be established in Greece and this constitutes a Greek success because of the important role which the Secretariat will have in the supervision of the program for the Mediterranean. The coordination of this program had previously been in the hands of a United Nations unit in Geneva.

CSO: 5000

ANDREAS SYMEON INTERVIEWED ON URBAN CONSERVATION

Athens THE ATHENIAN in English Mar 81 pp 15, 16, 17

[Interview with Andreas Symeon, architect and city planner, by S. E., date and place not given]

[Text] **T**HE problem of urban conservation in Greece was brought into sharp focus recently when the Minister of Planning, Urban Development and the Environment, George Plytas, stated publicly that the way conservation is applied in Greece today is probably excessive.

The Minister's remark understandably caused a strong reaction among conservationist groups. As a result, the Elliniki Etairia, a leading organization dedicated to the protection of the cultural heritage and founded in 1972, arranged for an open discussion on the topic "The Policy for the Conservation of Our Heritage", to be held on February 23 at the National Foundation of Research. Among those invited to participate on the panel were leading architects, city planners, lawyers, an economist, a journalist, and representatives from the Ministries of Culture and of Planning, Urban Development and the Environment. The architect Paul Mylonas was asked to preside over the discussion. The following interview was held with the architect and city planner, Andreas Symeon, who was also invited to participate on the panel. For several years he was chairman of the board of the Elliniki Etairia.

Q. What is the main purpose of this discussion and what do you hope it will achieve?

A. First of all, I think it will give all those who deeply believe in conservation an opportunity to reaffirm their beliefs, and in doing so, they will realize that they are not alone and that by joint action they can accomplish specific things. I think it will also demonstrate to the government that there is very strong social sensitivity towards this matter and that the measures for protection and conservation should not be reduced but, if anything, intensified.

Q. Specifically, what is the issue which has brought recent attention once again to the government's overall policy on conservation?

A. In 1971 a survey by the Ministry of the Interior was made during which 11,000 settlements were visited and evaluated. Of these 2,000 were proposed as worthy of conservation. Finally, the Ministry made up a list of 400 which would be protected by law. To say, as Mr. Plytas has said, that this is excessive and that he is going to review the lists with the view of reducing their number and giving people greater freedom in getting building permits is very unfortunate.

Q. Have those who own land in protected areas legitimate reason for complaint?

A. It is true that people have been suffering in certain areas which have been designated for conservation. There has been inefficiency,

red-tape, and an overlapping of jurisdictions. The basic problem, however, with public acceptance of conservation is the lack of consistency and continuity in any overall policy. For instance, if you have one minister who stresses the need for conservation followed by another minister who says the opposite, people become confused. They see the measures governing urban conservation as something flexible which will be this way on one day and that way on another.

By making conservation just a matter of opinion and not a consistent policy of high priority, people can never be made to believe it, can never be persuaded to make sacrifices. Similar is the case with Law 947 that was introduced by Mr. Plytas' predecessor. This was a tool to implement a general policy for planning and development. Strange as it may sound, in Greece we completely lacked these basic tools through which one can even begin to have an orderly and organized development. The general outcry to this law was partly due to poor judgment on the part of the previous administration which initially tried to implement this law with the surroundings of Athens where the pattern of land ownership existed which was the result of the haphazard way in which the area had been already developed. To superimpose a rigid policy here was therefore extremely difficult, and thousands of people protested. But to say, as the present Minister has said, that it is a bad law which needs to be changed, is going to extremes. It is precisely because we have done nothing over the years in Greece that implementation is going to be painstaking and difficult. A minister may emphasize one thing over another, he may have his own ideas, he may introduce new methods and measures of application, but he cannot question the validity of the conservation concept itself.

Mr. Plytas says that we are exaggerating and that we cannot preserve every ruin in the country. But who said that the state of repair of a certain building is the criterion of its value? That the Parthenon is a ruin is not a reason to tear it down. Mr. Plytas ignores several basic things. Even the individual value of a building should not be the sole criterion for its preservation. It is how the building in question lies in relation to a broader whole, that is, its environmental value. If, for example, you have a complex of twenty buildings, you do not judge them individually, demolishing seven and preserving thirteen. It is their total value that matters.

Q. What has been the official policy towards urban conservation in the past and how has it evolved?

A. Conservation measures in Greece have existed for a long time. Protection of ancient sites in general under the jurisdiction of the Archaeological Service, now a part of the Ministry of Culture, has been in existence for many decades. Until recently, however, conservation was only an extension of the archaeological legislation which viewed these buildings as dead monuments to be protected in museum fashion. For some time now, however, a new attitude towards conservation has come about in which monuments are viewed as part of a living environment and can retain a function and participate in contemporary community life. This spirit towards conservation is quite new to Greece and it was for the purpose of supporting it that the new Ministry of Housing, Urban Development and the Environment was given jurisdiction over the "traditional settlements". That the present Minister should now question the validity of the concept which the Ministry is entrusted to implement is, of course, very sad.

Q. How do you account for these shifts in the government's attitude towards urban conservation?

A. There are a number of misconceptions and myths, I would say, in the whole story of conservation in Greece. For some people they are genuine and sincere, for others these myths are deliberately cultivated because they work in their interest. One of them is that private property is untouchable and, of course, under a political and economic system like ours, it is true that you don't touch private property without reason. On the other hand, there is also a confusion between the rights of private property and the rights of development. Having property does not necessarily mean that you can develop it as you wish. Development rights are given by the government, and only the government is responsible for determining to what extent they should be given and, if they are given, how they should be used.

Q. Have governments alone been responsible for mistakes in the past?

A. It must be admitted that the leading class in this country has not acted responsibly. It was the first to demolish its traditional buildings starting right in the heart of Athens. So it is a bit difficult for members of this class to go out to villages and small towns and say, "You must preserve your houses now that we have destroyed ours." Nor have some organizations fulfilled their responsibilities. Two buildings near the Old Parliament, owned by the University of Athens were saved from demolition at the last moment. The Mavromichalis house on Amalias, owned by an affiliate of the Bank of Greece, and the Kazouli house in Kifissia, owned by IKA are collapsing from neglect until, it seems, they shall be condemned. Yet, in most parts of the world, it is especially institutions and organizations which are financially strong and wish to be identified with a certain image and prestige that buy and restore old buildings. Unless good examples are set, how can people be convinced of the importance of conservation?

Q. What are your proposals for strengthening public support of the goals of conservation?

A. There is only one thing we have done so far in Greece. You might call it passive conservation. This consists of prohibitions, limitations and constraints. We have done nothing about active conservation. Citizens are not told what they are allowed to do and how they can accomplish it. To make conservation work, economic incentives must be created. Loans and grants are necessary, and assistance is needed to help people find new uses for old buildings. Good examples must be given by the government, by institutions, and by privileged people who have the capacity to set them. More imagination is needed. For instance, there exists now a new law which allows the transfer of development rights to another area. By this, the government may furnish a certificate to a person who applies for a seven-storey building on a site now occupied by a three-storey building which is worth conserving. This house may be converted to an appropriate contemporary use supplying the owner with a certain income. In addition, however, the certificate allows that person to build the remaining four storeys in an area like Maroussi or Paradissos where zoning laws permit it. The opportunities afforded by such existing legislation need to be encouraged.

If we want a beautiful environment the social cost that it entails should be shared by all. To save older buildings, the proprietors of newer buildings who took advantage of the lack of earlier restrictions must help. Otherwise, the ownership of a historic building will be considered a curse rather than a blessing. There are ways to raise such funds, by a special lottery or even by a special tax on

new construction that should also pay for the preservation of the old.

Q. Is it a problem, then, of adhering to a basic overall theory?

A. It is fashionable these days to say that we cannot speak of conservation unless we are all agreed on the ideological foundation for conservation. I agree that this is extremely important. On the other hand, we cannot afford the luxury of waiting until we have resolved these matters because there is so little that remains. To be convinced about the ideological foundation of conservation we must make sure that there will be something left for conservation. Then, I believe, it will be up to the next generation to decide about the optimum use of this heritage, consistent with the ideology of their time. Our task is to preserve this heritage for them through a time of crisis.

The destruction of our architectural heritage should also be attributed to the fact that Greece still lacks the basic legislation, the basic tools for the implementation of urban development. Through proper town planning, totally modern communities could have been built outside of existing settlements, so one could have had both the old and the new. But, in fact, the old was destroyed to make room for the new, but on the old existing pattern which was not sufficiently spacious or adapted to modern functional needs. So, in a way, it was a double misfortune. This kind of urban destruction was phenomenal during the seven years of dictatorship and, unfortunately, this can be seen very clearly today.

Q. Where do you place urban conservation among those priorities claiming national attention?

A. I do believe - and I insist on this - that unless we realize how important conservation is, we will never achieve anything. It is as essential as national defense, as national education. In the modern world where people are so alienated from their

roots, conservation is the only tangible way we have to re-establish a rapport and a continuity with our national traditions and thereby to preserve our national identity. This can only be achieved by the active support of the people, and to gain this the government must follow a policy of continuity, consistency and dedication.

-S.E.

AEGEAN, IONIAN SEAS CONSIDERED HIGHLY EARTHQUAKE PRONE

Athens TA NEA in Greek 2 Mar 81 pp 1, 5

[Article by Andreas Georgiou]

[Text] Uppsala, Sweden--They pointed out to us a very old, low, yellow-colored cottage nestled between the snowbanks, near Uppsala Observatory, and they said to us: This is the Seismological Institute.

Costly buildings are not necessary for worldwide fame and recognition. And there, in a simple room with seismographic charts and books--where the most imposing and modern apparatus is the photocopying equipment--we were greeted by Prof Otto (Koulkhanek) and by the technical director of the institute, Claus (Megier).

They seemed a bit embarrassed and shy--as Swedes are--and even more so because these two have found themselves at the epicenter of a literally "seismic" attraction. They are the people who were presented by the press as having predicted not only that there would be an earthquake in Greece, but also the exact date when it would happen.

How the Seismic "Distortion" Came About

They say to me:

"The whole story about our supposedly having predicted the exact date of the earthquake which was to take place in Greece began last November, following the catastrophic earthquakes in Italy. At that time, a Swedish newspaper had published an outline of the theoretical hypothesis by Mark (Both), a professor at our institute, which says that Africa and Europe are approaching one another at a speed of a few centimeters per year. The boundaries between the tectonic plates of Eurasia and Africa start somewhere near the Azores and then proceed eastward via Gibraltar and southern Europe and continue toward Turkey and Iran. These two plates are exerting pressure on one another, and at the points of contact there is a great strain which leads to an earthquake wherever the material cannot withstand the pressure.

"According to this theory, when seismic activity begins in the Azores, this activity advances eastwards. In 1980 the Azores, Algeria, and Italy were struck in turn by earthquakes, whereupon we had said: If this theory of

seismic movement towards the east is correct, then the area where the next earthquake will occur will be the eastern portion of the Mediterranean, Yugoslavia, or Turkey. We had even added that it is impossible to predict the exact position and time of the next earthquake. The boundaries of the plates are not a line, but an entire zone. This was the famous "prediction." When the earthquake in Greece took place, we issued an announcement for the press bearing the title 'Earthquake in the Area of the Mediterranean.'

"Among other things, we stated that in our opinion the earthquake in Greece has some connection with the 1980 earthquakes in northern Africa and Italy. We had added that the speed of movement of this seismic series is about 11 kilometers per day and that if the earthquakes move in accordance with our hypotheses and at the same speed, we ought to expect major earthquakes in western Turkey in April or May and in western Iran in August or September, or in Pakistan at a later date, and so forth. In short: In our forecast we had not even mentioned Greece, and we had not spoken about the time. We had talked about a possible earthquake. This reached the Greek press, via an article in a Swedish newspaper, as a prediction of the exact date of the earthquake in Greece. In other words, there was a seismic "distortion" accompanying its displacement. Therefore, we want you to make it clear that we had not predicted either the exact location or the time. And, of course, we could not have "notified" our Greek colleagues or the Greek government. In fact, we can say that there are earthquakes which do not follow the pattern predicted by our hypothesis."

How They Make Forecasts

We ask Prof (Koulikhanek) the question which we are "burning" to have answered:

"To what extent can earthquakes be predicted today?"

"In essence, it is impossible today to predict the exact time and location of an earthquake. But if we had a great many measuring stations in every country, along with the suitable equipment, we could say that theoretically it would be possible for us to have fairly satisfactory prognoses. But earthquakes are a complex problem, and research is still in its infancy. Where research has progressed the most is in the United States, the Soviet Union, and China.

"In China, for example, they succeeded in predicting some earthquakes with great accuracy in 1970. In fact, in one case they evacuated a city, and a few days later the earthquake occurred which they expected. But in 1976 they utterly failed to predict the catastrophic earthquake which cost the lives of hundreds of thousands of people."

"What methods does science use today for predicting earthquakes?"

"It uses four above all: Geophysical, geoelectrical, chemical, and biological. Geophysical methods are when we monitor and measure continuously the speed of the seismic waves. Before an earthquake, this velocity changes. When we see this change on our meters, something happens. We do comparable things with the geoelectrical methods:

"We measure continuously the voltage in relation to the topography. If a change occurs it is a sign that something is happening. In the chemical methods, we monitor continuously the percentage of radium in the water--for example, in the spring at a spa. If its percentage changes, that also is a sign. Furthermore, there are the biological methods, which are based on the observation of certain animals which display an intense anxiety before an earthquake. Perhaps they perceive a change in vibrations in the air or ground.

"But there are difficulties here, because relevant experiments have shown that not all the animals of a species react the same, and also that the same animal can react before one earthquake, but not have a presentiment of anything before the next earthquake."

"What then can and cannot seismological science predict today?"

"We can predict how large an earthquake will be, just as we can predict which regions will have more earthquakes than others. Furthermore, we can predict statistically for each region how long on an average an earthquake is likely to manifest itself, when we have the 'seismic history' of an area for a great many decades--for example, for a hundred years. But we cannot predict exactly where it will happen and above all when it will happen. Thus, a prediction about an earthquake is practically without significance in most cases, since we cannot evacuate a city or a country for 5, 10, or more years. Thus the primary inference is that the buildings must be constructed to withstand earthquakes, on the basis of the given conditions in an area."

Greece: Record-holder for Red Dots

Now they show us a seismographic chart of the world which hangs on the wall. Every earthquake which has occurred in recent decades is represented on the chart by a red dot whose size is relative to the intensity of the earthquake. Greece is practically invisible on this chart, because it is covered with red dots of all sizes. No other country in Europe has such a density of red dots.

The Aegean and the Ionian seas are the most earthquake-prone areas in Greece, and of course in Europe, Prof (Koulkhanek) tells us. Only the area around the Greek-Bulgarian border is relatively "clear" of red dots.

On the table in front of us, magnified 50 times, is the seismogram of the great earthquake in Athens. On the vertical axis is the time: 2258 hours. And at that point the smooth line breaks off suddenly and the undulations begin: It is the disturbed "pulse" of Athens, as recorded here, 4,000 kilometers away, on that night.

I show the seismogram to the professor and ask:

"If you yourself were living in Athens and were staying in an apartment building, would you have fled or would you have stayed there?"

"Mmm....For the first 2 or 3 days, especially if I were staying on the seventh or eighth floor, I would rather not remain. But if the engineer had found the

apartment building to be all right, then since it had endured a magnitude of 7 on the Richter scale it could withstand the 5 points of the after-shocks as well. But something of this sort depends also on the person. A person, even if he is a seismologist, may not have happy sensations when he is being tossed about, even by the weak after-shocks. And these will continue...."

The Greek Seismologists

"What is your opinion about the Greek seismologists?"

"Those whom I know personally, at least, have an extremely high degree of scientific competence, and I have great respect and esteem for them. And I do not say this out of politeness. Prof Papazakhos, for example, has been invited by us to come and hear a doctoral thesis on the subject of after-shock phenomena. We have a good deal of profitable cooperation and contacts with our Greek colleagues."

"What opinion do you have on the technical equipment of the Greek seismological centers?" (Editor's note: Prof (Koulikhanek) and his associate (Megier) had come to Salonica after the major earthquakes of 1978).

"When we went to Salonica there were very few implements. But after the earthquake, the devices and instruments are now adequate. They are more modern even than our own here. I do not know about Athens."

"In your opinion, should more resources and money be made available in Greece for scientific work to counter the effects of earthquakes?"

"Absolutely. I believe that very strongly. We are dealing with human lives here."

Three Generations of Devices

Prof (Koulikhanek) and Claus (Megier) invite us on a tour to see their own technical equipment.

We begin with the basement, where inside a large, old-fashioned square cabinet there is an old seismograph made in 1904, which is still in working order. "An old beauty, which still has all its youthful sensitivity," explains the professor. Afterwards we pass on to some electromechanical seismographs. These too are old makes, manufactured in 1950-1960. This year, the institute has been enhanced with the addition of microelectronic seismographs of the "1980 generation," which are now being installed.

These are the implements of the Uppsala Seismographic Institute. There are five more measuring stations, with similar instruments, scattered throughout Sweden. As for manpower, the institute has nine persons as personnel (scientists, technicians, administrators). In addition it has six researchers who are engaged in graduate studies (seven different nationalities are represented in the personnel and students). They are all housed in this hovel, which occasions Prof (Koulikhanek) to say to us:

"We here need an earthquake as well, so that we may be released from this cottage and can get some more modern and larger building."

The budget of the institute is only 1 million kronas per year (about 12 million drachmas) for salaries, instruments, and so forth.

"And how do you explain then the international fame and worldwide prestige of the institute?"

"By very practical work. The philosophy of our work is an orientation to observational seismology. Elsewhere there are seismologists who have never seen a seismogram themselves and who give their attention only to theoretical matters. Every day, we measure and analyze 27 seismograms from our six stations. We pay attention to everything and try to explain it. Another reason is that Sweden's subsurface layers are very stable and are also very homogenous, and thus we can take good measurements. Also, we have intensive scientific exchanges with the whole world. Also significant was the fact that the Uppsala Seismological Institute was formed under the leadership of Prof (Both), who is an internationally recognized authority on seismological phenomena." Of course, they neglected to mention their own names: Otto (Koulikhanek) and Claus (Megier).

"We must change paper in the seismograph," reminds one of the two before we say goodbye.

The daily routine begins again....And for these people this "routine" is to listen to the crust and the bowels of the earth, in order to learn something about the future of our planet, and not only about tomorrow or the next day, but about millions of years from today. And they are just two humble people, two ordinary citizens of Sweden.

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